TECHNIQUES FOR MAPPING FUNCTIONS TO LOOKUP TABLES ON PROGRAMMABLE CIRCUITS

ABSTRACT OF THE DISCLOSURE

[0065]   Techniques for mapping functions in a user design to lookup tables on a programmable integrated circuit are provided. Functions within a user design are rewritten as a composition of smaller, decomposed functions using a decomposition technique. An attempt is made to fit the decomposed functions into a lookup table configuration. If the decomposed functions do not fit into one the lookup table configurations for the programmable integrated circuit, the input variables are rotated within the user function. Then, an attempt is made to decompose the user function again based on the rotated input variables.